

Serial Number: 09/773,478

Docket Number: 10004431-1

IN THE CLAIMS:

1. (Cancelled)

2. (Currently Amended) A method for color processing, comprising the steps of:

defining a composite color space in a memory of a computer system, the composite color space having a number of color space portions and a number of transition portions between adjacent ones of the color space portions;

converting an input color space representation of a color into a composite color space representation of the color in the computer system; and

gamut mapping the color in the composite color space after the color is converted into the composite color space representation to obtain a representation of the color in the composite color space that is reproducible by an output device.

3. (Previously Presented) The method of claim 2, wherein the step of defining the composite color space, further comprises the step of defining each of the color space portions as a portion of a predefined color space.

4. (Previously Presented) The method of claim 2, wherein the step of defining the composite color space further comprises the step of defining a color space within each of the transition portions as a hybrid of the color space portions adjacent thereto.

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5. (Previously Presented) The method of claim 2, wherein the step of converting an input color space representation of the color into the composite color space representation of the color in the computer system further comprises the steps of:

defining a number of color space conversions associated with a respective number of hue angle ranges to convert the input color space representation of the color into the composite color space representation of the color;

identifying one of the color space conversions corresponding to a hue angle associated with the color; and

converting the input color space representation to the composite color space representation of the color based on the respective color space conversion.

6. (Original) The method of claim 5, wherein the step of converting the input color space representation to the composite color space representation of the color based on the respective color space conversion further comprises the step of calculating the composite color space representation in one of the transition portions as a weighted sum of the color space representations of adjacent ones of the color space portions.

7. (Canceled)

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8. (Currently Amended) A computer program embodied on a computer readable medium for color processing, comprising:

logic to define a composite color space, the composite color space having a number of color space portions and a number of transition portions between adjacent ones of the color space portions;

logic to convert an input color space representation of a color into a composite color space representation of the color; and

logic to perform gamut mapping of the color in the composite color space after the color is converted into the composite color space representation to obtain a representation of the color in the composite color space that is reproducible by an output device.

9. (Previously Presented) The computer program embodied on the computer readable medium of claim 8, wherein the logic to define the composite color space, further comprises logic to employ a portion of a predefined color space as each of the color space portions.

10. (Previously Presented) The computer program embodied on the computer readable medium of claim 8, wherein the logic to define the composite color space further comprises logic to define a color space within each of the transition portions as a hybrid of the color space portions adjacent thereto.

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11. (Previously Presented) The computer program embodied on the computer readable medium of claim 8, wherein the logic to convert the input color space representation of the color into the composite color space representation of the color further comprises:

logic to define a number of color space conversions associated with a respective number of hue angle ranges to convert the input color space representation of the color into the composite color space representation of the color;

logic to identify one of the color space conversions corresponding to a hue angle associated with the color; and

logic to convert the input color space representation to the composite color space representation of the color using the respective color space conversion.

12. (Original) The computer program embodied on the computer readable medium of claim 11, wherein logic to convert the input color space representation to the composite color space representation of the color based on the respective color space conversion further comprises logic to calculate the composite color space representation in one of the transition portions as a weighted sum of the color space representations of adjacent ones of the color space portions.

13. (Canceled)

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14. (Currently Amended) A system for color processing, comprising:
a processor circuit having a processor and a memory;
logic stored on the memory and executable by the processor to define
a composite color space, the composite color space having a number of color space
portions and a number of transition portions between adjacent ones of the color
space portions;

logic stored on the memory and executable by the processor to convert
an input color space representation of a color into a composite color space
representation of the color; and

logic stored on the memory and executable by the processor to
perform gamut mapping of the color in the composite color space after the color is
converted into the composite color space representation to obtain a representation of
the color in the composite color space that is reproducible by an output device.

15. (Previously Presented) The system of claim 14, wherein the logic
stored on the memory and executable by the processor to define the composite color
space, further comprises logic stored on the memory and executable by the
processor to employ a portion of a predefined color space as each of the color space
portions.

16. (Previously Presented) The system of claim 14, wherein the logic
stored on the memory and executable by the processor to define the composite color
space further comprises logic stored on the memory and executable by the
processor to define a color space within each of the transition portions as a hybrid of
the color space portions adjacent thereto.

17. (Canceled)

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18. (Currently Amended) A system for color processing, comprising:
means for defining a composite color space in a memory of a computer system, the composite color space having a number of color space portions and a number of transition portions between adjacent ones of the color space portions;
means for converting an input color space representation of a color into a composite color space representation of the color in the computer system; and
means for gamut mapping the color in the composite color space after the color is converted into the composite color space representation to obtain a representation of the color in the composite color space that is reproducible by an output device an output color space.

19. (Previously Presented) The system of claim 18, wherein the means for defining the composite color space, further comprises means for defining each of the color space portions as a portion of a predefined color space.

20. (Previously Presented) The system of claim 18, wherein the means for defining the composite color space further comprises means for defining a color space within each of the transition portions as a hybrid of the color space portions adjacent thereto.